

U.S. ENVIRONMENTAL PROTECTION AGENCY  
UNDERGROUND INJECTION CONTROL (UIC) PERMIT: CLASS III  
PERMIT NUMBER NYU063860

Pursuant to the Underground Injection Control (“UIC”) regulations of the U.S. Environmental Protection Agency (“EPA”) codified at Title 40 of the Code of Federal Regulations (“C.F.R.”), Parts 124, 144, 146, and 147, US Salt, LLC, P.O. Box 110, Salt Plant Road, Watkins Glen, NY 14891 (“US Salt” or “Permittee”) is hereby authorized to continue to operate the Class III salt solution mining injection wells listed in Attachment 3 of this permit and to construct new Class III injection wells within the area identified on Attachment 2, upon the condition that the Permittee meets the restrictions set forth herein. The facility is located at approximately 42.41003<sup>0</sup> north latitude and -76.89747<sup>0</sup> west longitude, Salt Plant Road, Watkins Glen, New York 14891. Injection is authorized into the Syracuse Salt Formation. Injection into newly constructed wells shall not commence until the Permittee has received written authorization from the Director to inject.

All references to Title 40 of the C.F.R. are to all regulations that are in effect on the date that this permit is effective. The following attachments are incorporated into this permit:

- Attachment 1: Plugging and Abandonment Plan
- Attachment 2: Facility Map
- Attachment 3: List of Wells Covered by this Permit
- Attachment 4: Completion Report for Injection Wells
- Attachment 5: Quarterly Injection Well Monitoring Report

This permit shall become effective on \_\_\_\_\_, 2020. This permit and the authorization to inject shall expire at midnight on \_\_\_\_\_, 2030, unless terminated. It will also expire upon delegation of primary enforcement responsibility to the State of New York, unless that State chooses to adopt this permit as a State permit.

Signed this \_\_\_\_\_ day of \_\_\_\_\_ 2020.

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Javier Laureano, Director  
Division of Water

## **PART I. GENERAL PERMIT COMPLIANCE**

### **A. EFFECT OF PERMIT**

The Permittee can engage in underground injection in accordance with the conditions of this permit. Notwithstanding any other provision of this permit, the Permittee authorized by this permit shall not construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water (“USDWs”), if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 C.F.R. Parts 141 and 142 or may otherwise adversely affect the health of persons. Any underground injection activity not specifically authorized in this permit is prohibited. Compliance with this permit during its term constitutes compliance with Part C of the Safe Drinking Water Act (“SDWA”). Such compliance does not constitute a defense to any action brought for violation of Section 1431 of the SDWA, or any other common or statutory law or regulation. Pursuant to 40 C.F.R. §§144.35(b) and 144.35(c), issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Nothing in this permit shall be construed to relieve the Permittee of any duties under applicable regulations.

### **B. PERMIT ACTIONS**

#### **1. Modification, Revocation, Reissuance and Termination**

The Director may, for cause or upon request from the Permittee, modify or revoke and reissue this permit in accordance with 40 C.F.R. §§144.12 and 144.39. Additionally, the Director may, for cause, terminate this permit in accordance with 40 C.F.R. §144.40. The permit is subject to minor modifications for cause as specified in 40 C.F.R. §144.41. The filing of a request for a permit modification or revocation and reissuance, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition.

#### **2. Transfer of Permits**

This permit is not transferable to any person except in accordance with 40 C.F.R. §144.38.

### **C. SEVERABILITY**

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

### **D. CONFIDENTIALITY**

In accordance with 40 C.F.R. §§2.203(b) and §144.5, any information submitted to EPA pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted at the

time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 C.F.R. Part 2. Pursuant to 40 C.F.R. §144.5(b), claims of confidentiality for the following information will be denied:

- 1) The name and address of the Permittee.
- 2) Information which deals with the existence, absence or level of contaminants in drinking water.

## **E. DUTIES AND REQUIREMENTS**

### **1. Duty to Comply**

Pursuant to 40 C.F.R. §144.51(a), the Permittee shall comply with all applicable UIC Program regulations and conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit issued in accordance with 40 C.F.R. §144.34. Any permit noncompliance constitutes a violation of the SDWA and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. Such noncompliance may also be grounds for enforcement action under the Resource Conservation and Recovery Act ("RCRA").

### **2. Penalties for Violations of Permit Conditions**

Any person who violates a permit requirement is subject to civil penalties, fines, and other enforcement action under the SDWA and may be subject to such actions pursuant to RCRA. Any person who willfully violates permit conditions may be subject to criminal prosecution.

### **3. Continuation of Expiring Permits**

- a. **Duty to Reapply:** If the Permittee desires to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must submit a complete application for a new permit at least 270 days before this permit expires.
- b. **Permit Extensions:** The conditions of an expired permit may continue in force only in accordance with 5 United States Code ("U.S.C.") 558(c) and 40 C.F.R. §144.37.
- c. **Effect:** Permits continued under 5 U.S.C. 558(c) and 40 C.F.R. §144.37 remain fully effective and enforceable.
- d. **Enforcement:** Pursuant to 40 C.F.R. §144.37(c), when the Permittee is not in compliance with the conditions of the expiring or expired permit, the Director may choose to do any or all of the following:
  - (1) Initiate enforcement action based upon the permit which has been continued;
  - (2) Issue a notice of intent to deny the new permit. If the permit is denied, the owner or operator would then be required to cease the activities authorized by

the continued permit or be subject to enforcement action for operating without a permit;

- (3) Issue a new permit under 40 C.F.R. Part 124 with appropriate conditions; or
- (4) Take other actions authorized by UIC regulations.

e. State Continuation: Pursuant to 40 C.F.R. §144.37(d), an EPA-issued permit does not continue in force beyond its expiration date under Federal law if at that time a State has primary enforcement authority under the SDWA. A State authorized to administer the UIC program may continue either EPA- or State-issued permits until the effective date of the new permits, if State law allows. Otherwise, the facility or activity is operating without a permit from the time of expiration of the old permit to the effective date of the new State-issued permit.

4. Need to Halt or Reduce Activity not a Defense

Pursuant to 40 C.F.R. §144.51(c), it shall not be a defense, for a Permittee in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

5. Duty to Mitigate

Pursuant to 40 C.F.R. §144.51(d), the Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

6. Proper Operation and Maintenance

Pursuant to 40 C.F.R. §144.51(e), the Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.

7. Duty to Provide Information

Pursuant to 40 C.F.R. §144.51(h), the Permittee shall furnish to the Director, within a time specified, any information that the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.



8. Inspection and Entry

Pursuant to 40 C.F.R. §144.51(i), the Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

9. Records

- a. Pursuant to 40 C.F.R. §144.51(j)(2)(i), the Permittee shall retain records and all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit, for a period of at least three years from the date of the sample, measurement, or report. The Permittee may retain these records in electronic or paper format.
- b. Pursuant to 40 C.F.R. §144.51(j)(2)(i), the Permittee shall maintain records of all data required to complete the permit application form for this permit and any supplemental information submitted under 40 C.F.R. §144.31 for a period of at least three years from the date the application was signed. These periods may be extended by request of the Director at any time.
- c. Pursuant to 40 C.F.R. §144.51(j)(2)(ii), the Permittee shall retain records concerning the nature and composition of all injected fluids until three years after the completion of plugging and abandonment which has been carried out in accordance with Attachment 1 and is consistent with 40 C.F.R. §146.10.
- d. Pursuant to 40 C.F.R. §144.51(j)(2)(ii), the Permittee shall continue to retain such records after the retention period specified by Paragraphs 9.a. to 9.c. above, unless he/she delivers the records to the Director or obtains written approval from the Director to discard the records.
- e. Records of monitoring information shall include:
  - (1) The date, exact place, and time of sampling or measurements;
  - (2) The name(s) of individual(s) who performed the sampling or measurements;
  - (3) A precise description of both sampling methodology and the handling (custody) of samples;
  - (4) The date(s) analyses were performed;
  - (5) The name(s) of individual(s) who performed the analyses;
  - (6) The analytical techniques or methods used; and
  - (7) The results of such analyses.

10. Monitoring

Pursuant to 40 C.F.R. §144.51(j), samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Monitoring results shall be reported at the intervals specified in Part II, Section D of this permit. Monitoring of the nature of injected fluids shall comply with applicable analytical methods cited and described in Table I of 40 C.F.R. §136.3 or in Appendix III of 40 C.F.R. Part 261 or in certain circumstances by other methods that have been approved by the Director.

11. Signatory Requirements

All reports or other information, required to be submitted by this permit or requested by the Director, shall be signed and certified in accordance with 40 C.F.R. §144.32.

12. Reporting Requirements

a. **Planned Changes:** Pursuant to 40 C.F.R. §144.51(l)(1), the Permittee shall give written notice to the Director, as soon as possible, of any planned physical alterations or additions to the Class III injection wells, or to any other structures related to Class III injection activities authorized by this permit.

b. **Anticipated Noncompliance:** Pursuant to 40 C.F.R. §144.51(l)(2), the Permittee shall give advanced notice to the Director of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

c. **Compliance Schedules:** Pursuant to 40 C.F.R. §144.51(l)(5), reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each schedule date.

d. **Twenty-four Hour Reporting:**

(1) Pursuant to 40 C.F.R. §144.51(l)(6), the Permittee shall report to the Director any noncompliance that may endanger health or the environment. Any such information shall be provided orally and/or by e-mail within 24 hours from the time the Permittee becomes aware of the circumstances. Such reports shall include, but not be limited to, the following information:

(a) Any monitoring or other information that indicates that any contaminant may cause an endangerment to an underground source of drinking water; and

(b) Any noncompliance with a permit condition, or malfunction of the injection system, that may cause fluid migration into or between underground sources of drinking water so as to cause a violation of primary drinking water regulations under 40 C.F.R. Parts 141 and 142 or otherwise adversely affect the health of persons.

e. **Five Day Written Reporting:** Pursuant to 40 C.F.R. §144.51(l)(6), for any noncompliance subject to the reporting requirements in Paragraph 12.d.(1) above, a written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the

anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

f. Other Noncompliance: Pursuant to 40 C.F.R. §144.51(l)(7), the Permittee shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph 12.e. above.

g. Other Information: Pursuant to 40 C.F.R. §144.51(l)(8), when the Permittee becomes aware that he/she failed to submit any relevant facts in the permit application or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall submit such facts or information within 10 days.

h. Report on Permit Review: Within 30 days of the effective date of this permit, the Permittee shall report to the Director that he/she has read and is personally familiar with all terms and conditions of this permit.

i. Report Submittal:

(1) Written reports required under this Section shall be submitted to the address identified in Part II, Section D.2 of this permit.

(2) Oral/electronic reporting required under this Section shall be provided to:

(a) E-mail to: [region2\\_uic@epa.gov](mailto:region2_uic@epa.gov)

(b) Charles Hillenbrand: (212) 637-3951 / [hillenbrand.charles@epa.gov](mailto:hillenbrand.charles@epa.gov) and/or

(c) Christine Ash, Chief, Drinking Water and Ground Water Protection Section: (212) 637-4006 / [ash.christine@epa.gov](mailto:ash.christine@epa.gov)

## **F. DRILLING AND CONSTRUCTION OF NEW WELLS**

New injection wells may be constructed only within the area indicated on Attachment 2 of this permit. The wells must be built in accordance with the construction requirements in Part II Section A of this permit. The Permittee shall notify the Director, in writing, no less than 180 days before the planned commencement of any construction activity associated with the drilling of new injection wells including but not limited to construction of access roads and well locations. This notification shall include:

1. A map, drawn to scale, displaying the following:

a. The proposed new well surface location with latitude and longitude and, if well is to be directionally drilled, bottom hole location with latitude and longitude.

b. The projected gallery diameters as well as all neighboring existing wells with their estimated current, and projected, gallery diameters.

2. A schematic diagram displaying the surface and subsurface construction details of the proposed well (40 C.F.R. §146.34(a)(11)).

3. Any proposed modifications to the casing and cementing requirements at Part II Section A of this permit.

4. Any available information concerning the potential impact of the proposed construction on historic or prehistoric resources if found during the planning or construction of the well, including any correspondence with and determinations from the New York State Historical Preservation Office, shall be submitted.

5. Documentation demonstrating that the Permittee has adjusted the amount of financial responsibility, as required at 40 CFR §144.52(a)(7), as necessary to provide the resources necessary to plug and abandon all unplugged wells covered by this permit.

The Director will evaluate the information submitted in order to, among other things, assess the cumulative effects of additional injection wells, the potential impact on historic and prehistoric resources and the adequacy of the proposed casing and cementing requirements. If the Director finds these impacts acceptable, the Permittee will receive written authorization to drill and construct the proposed new wells.

#### **G. COMMENCING INJECTION**

Prior to initiating any injection activity into a newly constructed well authorized by this permit, the Permittee shall satisfy the following requirements:

1. Demonstrate mechanical integrity of the well in accordance with Part II Section B.4 of this permit;
2. Completion of Construction:
  - a. Pursuant to 40 C.F.R §144.51(m), the Permittee shall submit the following:
    - (1) Notification that well construction, including any well rework activities, is complete.
    - (2) A well completion report pursuant to Part II Section A.4 of this permit.
  - b. Upon receipt of the information listed in Paragraphs 2.a.1 and 2.a.2 above, the Director shall, pursuant to 40 C.F.R §144.51(m):
    - (1) Review the well completion report. If the Director determines, after review of the well completion report and, if applicable, the inspection findings, that the new injection well is in compliance with the conditions of this permit, the Director shall provide written authorization to inject to Permittee.
    - (2) Provide to the Permittee, within 13 days of the date of the Director's receipt of the notice of completion of construction, notification of his or her intent to inspect the injection well within a reasonable time period.
3. Injection into any newly constructed well is prohibited until the Permittee has received written authorization to inject from the Director.

## **H. CONVERSION OR PLUGGING AND ABANDONMENT**

### **1. Notice of Conversion or Plugging and Abandonment**

Pursuant to 40 C.F.R. §144.51(n), the Permittee shall notify the Director no later than 45 days before the permanent conversion or abandonment of any well subject to the provisions of this permit.

### **2. Plugging and Abandonment**

The Permittee shall plug and abandon any well subject to the provisions of this permit consistent with 40 C.F.R. §146.10 and the Plugging and Abandonment Plan, which is hereby incorporated into this permit as Attachment 1. Pursuant to 40 C.F.R. §144.51(p), within 60 days after plugging the well, or by the date of the next quarterly report after plugging the well (whichever is earlier), the Permittee shall submit a report to the Director with EPA Form 7520-19 (Rev. 4-19), Well Rework, Plugging and Abandonment Plan, or Plugging and Abandonment Affidavit. The report shall be certified as accurate by the person who performed the plugging operation and shall consist of either:

- a. A statement that the well was plugged in accordance with the plan in Attachment 1; or
- b. If the actual plugging differed from the approved plan, a statement detailing the actual plugging and why the Director should approve such deviation. Any deviation from a previously approved plan that may endanger USDWs is cause for the Director to require the operator to replug the well.

### **3. Inactive Wells**

Pursuant to 40 C.F.R. §144.52(a)(6), after a cessation of injection for two years the Permittee shall plug and abandon the well in accordance with Attachment 1 unless:

- a. Notice is provided to the Director; and
- b. The Notice describes the actions or procedures that the Permittee will take to ensure that the well will not endanger USDWs during the period of temporary abandonment. These actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived in writing by the Director; and
- c. The Director determines that the actions and procedures are satisfactory.

## **I. CESSATION OF INJECTION**

Should any of the following events occur, Permittee shall immediately cease injection activities as indicated, follow applicable reporting requirements pursuant to Part I Section E.12 of this permit and shall not resume injection before receiving written authorization from the Director:

1. If the Permittee or the Director finds that any well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity as defined by 40 C.F.R. §146.8, including but not limited to unexplained wellhead pressure decreases, becomes evident during operation, all injection into that gallery shall cease.

2. If more than 5 years has elapsed since the last successful demonstration that a well has mechanical integrity in accordance with 40 C.F.R. §146.8 and Part II Section B.4 of this permit, injection into the violating well shall cease.

3. If any monitoring equipment required to demonstrate compliance with this permit ceases to operate such that Permittee is unable to perform monitoring required by this permit or is found to be providing inaccurate data such that the data cannot reliably demonstrate compliance with this permit, all injection that is monitored by the malfunctioning equipment shall cease.

4. If subsidence monitoring required pursuant to Part II Section C.4 of this permit or subsidence otherwise noted at the facility reveals that subsidence is occurring that may indicate or result in a loss of well or gallery integrity and the endangerment of USDWs, injection into that gallery shall cease.

5. Any other monitoring or testing indicating that injection activities authorized by this permit may be causing injected fluids to migrate into USDWs, the injection that may be causing the fluid migration shall cease.

## **J. CORRECTIVE ACTION REQUIREMENTS**

### **1. Corrective Action Plan**

Within the Area of Review, no wells were identified that are improperly sealed, completed or abandoned. Therefore, no Corrective Action Plan was required from the Permittee.

### **2. Upward Fluid Migration**

Should upward fluid migration resulting from the injection activity authorized by this permit occur through any well, including but not limited to any previously unknown well and any known well previously determined to be properly sealed, completed or abandoned, or through any other path, all injection activity shall cease until all repairs necessary to prevent the upward fluid migration are completed. Any such upward fluid migration is a violation of the provisions of this permit and is subject to the reporting requirements of Part I Section E.12. Injection activities shall not resume until the Director has determined that the repairs are satisfactory and approves the resumption of injection in writing.

## **K. FINANCIAL RESPONSIBILITY**

### **1. Financial Responsibility Demonstration:**

The Permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner consistent with the UIC regulations (40 C.F.R. §144.52(a)(7)). A Surety Performance Bond in the amount of \$867,047.00 and Standby Trust

Agreement covers the plugging and abandonment of 15 wells. If the acceptability of the financial demonstration changes, the Permittee shall provide advanced notification to the Director. The Permittee shall not substitute an alternative demonstration of financial responsibility from that which the Director has approved, unless he or she has previously submitted evidence of that alternative demonstration to the Director and the Director notifies him or her that the alternative demonstration of financial responsibility is acceptable. The financial responsibility mechanism shall be updated upon request of the Director.

## 2. Insolvency

In the event of:

- a. The bankruptcy of the trustee or the institution issuing the financial mechanism; or
- b. The suspension or revocation of the authority of the trustee institution to act as trustee;

or

- b. The loss of authority of the institution issuing the financial mechanism to issue such an instrument,

the Permittee must notify the Director within ten (10) business days. The owner or operator must establish other financial assurance or liability coverage acceptable to the Director within 60 days after such an event. An owner or operator must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under U.S.C. Title 11 (Bankruptcy), naming the owner or operator as debtor, within 10 business days after the commencement of the proceedings. A guarantor or a corporate guarantee must make such a notification if it is named as debtor, as required under the terms of the guarantee.

## **L. APPEAL OF PERMIT**

### 1. General

Pursuant to 40 C.F.R. §124.19(a), any person, including the Permittee, may file a petition with the Clerk of the Environmental Appeals Board, in accordance with filing and service requirements at 40 C.F.R. §124.19(i), to review this permit. This request must be made, in writing, within 30 days after the Regional Administrator or his/her delegatee has served notice of issuance of the final permit decision. A petition is filed when it is received by the Clerk of the Environmental Appeals Board. The Permittee may appeal this permit based upon the following conditions:

- a. If the Permittee supplied comments on the draft of this permit or participated in a public hearing concerning this permit, it may petition the Environmental Appeals Board to review any condition of this permit.
- b. If the Permittee failed to supply public comments and failed to participate in a public hearing concerning this permit, it may petition for an administrative review, but only to the extent that the final permit conditions reflect changes from the draft permit.

### 2. Contents of Appeal

Pursuant to 40 C.F.R. §124.19(a)(4), a petition shall:

- a. Follow the content and format requirements at 40 C.F.R. §124.19(d).
- b. Identify the contested permit condition or other specific challenge to the permit decision.
- c. Clearly set forth, with legal and factual support, Permittee's contentions for why the permit condition should be reviewed.
- d. Demonstrate that each challenge to the permit decision is based on either:
  - (1) A finding or fact or conclusion of law which is clearly erroneous, or
  - (2) An exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review.
- e. Include a demonstration that either:
  - (1) Each issue being raised in the petition was raised during the public comment period (including any public hearing) to the extent required by 40 C.F.R §124.13 by providing specific citation or other appropriate reference to the administrative record (e.g., by including the document name and page number), or
  - (2) For each issue raised in the petition that was not raised previously, an explanation of why such issues were not required, pursuant to 40 C.F.R §124.13, to be raised during the public comment period.
- f. For each issue raised in the petition that the Regional Administrator addressed in the response to comments document issued pursuant to 40 C.F.R §124.17, the petitioner must provide a citation to the relevant comment and response and explain why either:
  - (1) The Regional Administrator's response to the comment was clearly erroneous,or
  - (2) The issue otherwise warrants review.

### 3. Prerequisite to Judicial Review

A petition to the Environmental Appeals Board as described above is, pursuant to 5 U.S.C. §704, a prerequisite to the seeking of judicial review of any final EPA action regarding this permit. For purposes of a judicial review under the UIC program, final EPA action occurs when a final permit decision is issued by EPA and EPA review procedures as stated in Part I Section L above are exhausted. Final permit decisions shall be issued by the Regional Administrator:

- a. When the Environmental Appeals Board issues notice to the Permittee that review has been denied;
- b. When the Environmental Appeals Board issues a decision on the merits of the appeal and the decision does not include a remand of the proceedings; or
- c. Upon the completion of remand proceedings if the proceedings are remanded, unless the Environmental Appeals Board's remand order specifically provides that appeal of the remand decision will be required to exhaust administrative remedies.



## **M. DEFINITIONS**

### **1. Abandoned Well**

Abandoned Well means a well whose use has been permanently discontinued or which is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes.

### **2. Application**

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in approved States, including any approved modifications or revisions.

### **3. Aquifer**

Aquifer means a geological "formation", group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

### **4. Casing**

Casing means a pipe or tubing of appropriate material, of varying diameter and weight, lowered into a borehole during or after drilling in order to support the sides of the hole and thus prevent the walls from caving, to prevent loss of drilling mud into porous formations, or to prevent water, gas, or other fluid from entering or leaving the hole.

### **5. Cementing**

Cementing means the operation whereby a cement slurry is pumped into a drilled hole and/or forced behind the casing.

### **6. Class III Well**

Class III Well means a well which injects for:

- a. Mining of sulfur by the Frasch process; or
- b. In-situ production of uranium or other metals (This category includes only in-situ production from ore bodies which have not been conventionally mined. Solution mining of conventional mines such as stopes leaching is included in Class V); or
- c. Solution mining of salts or potash.

7. Compliance Schedule

Compliance Schedule means a schedule or remedial measures included in a "permit" including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the appropriate Act and regulations.

8. Composite Sample

Composite Sample means a combination of not less than 8 portions, of at least 100 milliliters, collected over the full-time period specified in this permit. The composite sample must be flow proportioned by either time interval between each aliquot or by volume as it relates to effluent flow at the time of sampling or total flow since collection of the previous aliquot. Aliquots may be collected manually or automatically.

9. Confining Zone

Confining Zone means a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone.

10. Contaminant

Contaminant means any physical, chemical, biological, or radiological substance or matter in water.

11. Daily Average of Parameter Monitored Continuously

Daily Average of Parameter Monitored Continuously means the sum of values observed and recorded periodically as specified in this permit, divided by the total number of values observed and recorded during that day.

12. Daily Average of Parameters Not Monitored Continuously

Daily Average of Parameters Not Monitored Continuously means the sum of all daily observed and recorded values divided by the total number of values observed and recorded during that day.

13. Daily or Monthly Maximum Value

Daily or Monthly Maximum Value means the highest value recorded during the day or month, respectively. For continuously monitored parameters the highest value recorded is the highest instantaneous value for the continuous monitoring recording.

14. Daily or Monthly Minimum Value

Daily or Monthly Minimum Value means the lowest value recorded during the day or month, respectively. For continuously monitored parameters, the lowest value recorded is the lowest instantaneous value from the continuous monitoring recording.

15. Director

Director means the Director of the Water Division, EPA Region 2, unless at some time in the future the State receives authority to administer the UIC program and assumes jurisdiction over the permit; at which time, the Director of the State program receiving authorization becomes the Director.

16. Drilling Mud

Drilling Mud means a heavy suspension used in drilling an "injection well", introduced down the drill pipe and through the drill bit.

17. Exempted Aquifer

Exempted Aquifer means an "aquifer" or its portion that meets the criteria in the definition of "underground source of drinking water" but which has been exempted according to the procedures in 40 C.F.R. §144.7.

18. Facility or Activity

Facility or Activity means any UIC "injection wells", or any other facility or activity that is subject to regulation under the UIC program.

19. Fault

Fault means a surface or zone of rock fracture along which there has been displacement.

20. Flow Rate

Flow Rate means the volume per unit time given to the flow of gases or other fluid substance which emerges from an orifice, pump, turbine or passes along a conduit or channel.

21. Fluid

Fluid means any material or substance which flows or moves whether in a semi-solid, liquid, sludge, gas, or any other form or state.

22. Formation

Formation means a body of consolidated or unconsolidated rock characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

23. Formation Fluid

Formation Fluid means "fluid" present in a "formation" under natural conditions as opposed to introduced fluids, such as "drilling mud".

24. GPM

GPM means gallons per minute.

25. Grab Sample

Grab Sample means a single portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the monitored activity.

26. Injection Tubing or Tubing

Injection Tubing or Tubing means a system of pipes, of appropriate material, inserted into the well through the casing to convey the injection fluid to the injection zone and to prevent casing degradation.

27. Injection Zone

Injection Zone means a geological "formation", group of formations, or part of a formation receiving fluids through a well.

28. Monthly Average of Parameters Monitored Continuously

Monthly Average of Parameters Monitored Continuously means the sum of values observed and recorded periodically as specified in this permit, divided by the total number of values observed and recorded during that month.

29. Monthly Average of Parameters Monitored Daily

Monthly Average of Parameters Monitored Daily means the sum of all daily observed and recorded values divided by the total number of values observed and recorded during that month.

30. Owner or Operator

Owner or Operator means the owner or operator of any "facility or activity" subject to regulation under the UIC program.

31. Packer

Packer means a device lowered into a well to produce a fluid tight seal.

32. Person

Person means an individual, association, partnership, corporation, municipality, State, Federal or Tribal agency, or an agent or employee thereof.

33. Plugging

Plugging means the act or process of stopping the flow of water, oil or gas into or out of a formation through a borehole or well penetrating that formation.

34. Pressure

Pressure means the total load or force per unit area acting on a surface.

35. PSIA

PSIA means pound per square inch absolute.

36. PSIG

PSIG means pounds per square inch gauge.

37. SDWA

SDWA means the Safe Drinking Water Act ~Pub. L. 93-523, as amended.

38. Site

Site means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

39. Surface Casing

Surface Casing means the string of well casing to be installed in the well, to at least below the base of all underground sources of drinking water, as a means of protection from leaks and operational damage.

40. Total Dissolved Solids (TDS)

Total Dissolved Solids (TDS) means the total dissolved (filterable) solids as determined by use of the method specified in 40 C.F.R. Part 136.

41. UIC

UIC means the Underground Injection Control Program under Part C of the SDWA, including an approved State program.

42. Underground Injection

Underground Injection means a "well injection".

43. Underground Source of Drinking Water (USDW)

Underground Source of Drinking Water (USDW) means an aquifer or its portion:

- a. Which supplies any public water system; or
- b. Which contains a sufficient quantity of ground water to supply a public water system: and
  - (1) Currently supplies drinking water for human consumption; or
  - (2) Contains fewer than 10,000 mg/l total dissolved solids; and
  - (3) Which is not an exempted aquifer.

44. Well

Well means a bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole whose depth is greater than the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system.

45. Well Injection

Well Injection means the subsurface emplacement of fluids through a well.

46. Well Monitoring

Well Monitoring means the measurement, by on-site instruments or laboratory methods, of the quality of water in a well.

47. Well Plug


Well Plug means a watertight and gas tight seal installed in a borehole or well to prevent movement of fluids.

48. Well Stimulation

Well Stimulation means several processes used to clean the well bore, enlarge channels, and increase pore space in the interval to be injected, thus making it possible for wastewater to move more readily into the formation, and includes (1) surging, (2) jetting, (3) blasting (4) acidizing, and (5) hydraulic fracturing.

## **PART II. WELL-SPECIFIC CONDITIONS**

### **A. CONSTRUCTION REQUIREMENTS**

1. Notwithstanding any other provision of this permit, the injection wells shall inject only into a formation(s) which is separated from any USDW by a confining zone that is free of known open faults or fractures within the Area of Review. 

2. Casing and Cementing:

The Permittee shall case and cement the wells to prevent the movement of fluids into or between USDWs. The casing and cement used in the construction and rework of any well shall be designed for the life expectancy of the well. At a minimum, new injection wells shall be constructed with:

- a. Conductor pipe (16 inch) from ground surface to 15 feet into bedrock (from 0 to approximately 200 feet of depth)
- b. Surface casing (10 ¾ inch, J55, 40.5#/ft) extending from the ground surface to 500 feet of depth and cemented to surface.
- c. Long string “production” casing (7 inch, J55, 23#/ft) set at or below the top of the injection zone (0 to 2700 ft +/-) and cemented to surface.

Proposed modifications to these casing and cementing requirements shall be submitted by the Permittee as part of the notification required pursuant to Part I Section F of this permit.

3. Records and Logging

All newly drilled wells shall be logged and a copy of all logs shall be submitted to the Director for review. The Permittee shall, at a minimum, run the following logs on all newly drilled wells:

- a. Aquifer Records: The Permittee shall record the depth and estimated flowrate of each fresh water aquifer encountered during drilling.
- b. Open Hole Logs below surface casing only: Gamma ray-density-caliper-resistivity.
- c. Cased Hole Logs run on the long string casing only:
  - (1) Cement Bond Log
  - (2) HR Vertilog

Pursuant to 40 C.F.R. §146.32(b) the cement evaluation log shall be accompanied by an interpretive report prepared by a knowledgeable log analyst. This report shall, at a minimum, provide an evaluation of the adequacy of cement quantity and quality in preventing upward fluid migration in the wellbore above the injection zone and into USDWs.

#### 4. Well Completion Report

As specified in Part I Section G.2 of this permit, the Permittee shall submit a well completion report, EPA Form 7520-18, Rev. 4-19, Completion Report for Injection Wells (Attachment 4), to the Director for each newly drilled well. The well completion report shall, at a minimum, include the following information:

- a. Measured depth and, if well directionally drilled, total vertical depth of well.
- b. If directionally drilled, latitude and longitude of the bottom hole location.
- c. Logs run pursuant to Part II Section A.3 of this permit with an interpretive report.
- d. Depth and flow rate of any fresh water aquifers encountered during drilling.
- e. Depth at which each casing string was set and cementing tickets for all cemented casing strings.
- f. Mechanical integrity test results.

Pursuant to Part I Section G.3 of this permit, the Permittee shall not initiate injection into a newly drilled well until the Director has sent Permittee written authorization to inject.

### **B. OPERATING AND TESTING REQUIREMENTS**

#### 1. Injection Formation

Injection shall be limited to the Salina Syracuse Formation which lies at a depth of approximately 2,000 to 2,800 feet below the surface. The fracture gradient of the injection zone is approximately 1.25 to 1.5 psi/ft. The dimensions of the galleries created in the salt and the distances between those galleries shall be controlled so that the possibility of gallery collapse or subsidence is minimized.

#### 2. Injection Fluid Limitation

Injection fluid shall be limited to:

North Field

- a. Seneca Lake water



South Field (“Injection Brine” or “Weak Brine”)

- b. Seneca Lake water
- c. Water condensed from steam
- d. Brine purged from the salt evaporation process
- e. Excess brine
- f. Brine derived from solution mining the Syracuse formation received from off-site sources
- g. Brine made from dissolved salt products and from dust collectors

3. Injection Pressure Limitations

Maximum injection pressure at the wellhead shall be calculated to ensure that the pressure in the injection zone during injection does not initiate new fractures, propagate existing fractures in the confining zone or cause the migration of injection or formation fluids into a USDW. Except during mechanical integrity testing, maximum well head injection pressure shall be limited to **630 psig in North Field** (injection fluid specific gravity of 1.0) and **525 psig in South Field** (injection fluid specific gravity of 1.088). If the injection fluid specific gravity attains a value above 1.088 in South Field, or above 1.0 in North Field, the following formula must be used to calculate maximum injection pressure:

$$\text{Maximum Injection Pressure} = [0.733 - (0.433 \times \text{SG})] \times D \text{ psig}$$

Where:

SG = Specific Gravity of Injected Fluid  
D = Depth to the Top of Salina Salt

4. Mechanical Integrity Demonstration Frequency and Procedures

All injection well(s) must have and maintain mechanical integrity consistent with 40 C.F.R. §146.8.

a. The Permittee shall, at a minimum, perform a mechanical integrity test (“MIT”) on the injection wells at the following intervals:

- (1) For newly constructed wells, prior to initiating injection.
- (2) No later than 5 years after the date of the last successful MIT.
- (3) After any rework activities that may affect well integrity including, but not

limited to, wellhead removal or replacement and tubing removal or replacement.

(4) No later than 180 days after the date of the MIT failure or the date the lack of mechanical integrity was identified unless the well is plugged and abandoned in accordance with Part I Section H of this permit.

- (5) At other times as required by written notice from the Director.

b. The Permittee shall notify the Director of his/her intent to demonstrate mechanical integrity as follows:

- (1) at least 30 days prior to such demonstration for tests run pursuant to Paragraphs 4.a.1, 4.a.2 or 4.a.4 above.

- (2) at least 5 days prior to such demonstration for tests run pursuant to Paragraph 4.a.3 above.
- c. Any well that has failed an MIT or has been found to lack mechanical integrity shall:
- (1) cease injection immediately.
  - (2) be repaired and re-tested or plugged and abandoned pursuant to Paragraph 4.a.4 above.
- d. Mechanical integrity of the injection wells shall be demonstrated as follows:
- (1) No Significant Leaks:
    - (a) Newly drilled wells not connected to a gallery shall be individually pressure-tested with fresh water or spent brine. The test shall be run as follows:
      - (i) the pressure test shall be run with a starting pressure no less than 10% above the maximum permitted injection pressure.
      - (ii) The pressure test shall be run for a duration of no less than 1 hour.
- If the pressure drops at a rate of less than 5% per hour, the well passes the pressure test.
- (b) All other wells shall be tested utilizing the water-brine interface test methodology detailed in the Federal Register (Vol. 57/ No. 7/ January 10, 1992).
- (2) Absence of Significant Fluid Movement: The Permittee shall, at a minimum, submit to the Director the following for each newly drilled injection well:
- (a) Logs required pursuant to Part II Section A.3 of this permit with descriptive report.
  - (b) Cementing records for each casing string.
- The well passes this part of the MIT if evaluation of the above logs and records does not indicate that significant fluid movement is or may be occurring.
- (3) Other test methodology with the prior written approval of EPA.
  - (4) If any well fails either part of the MIT, that well must cease all injection operations until corrective action has been taken, the well has passed an MIT and the Permittee has received written authorization to inject from the Director.
  - (5) Subsequent MITs: each well must be tested for mechanical integrity utilizing the methodology in Paragraph B.4.d.1.b above at least once every 5 years.

5. Additional Injection Limitations

Injection between the outermost casing protecting USDWs and the well bore is prohibited, as is injection into any USDW.

**C. MONITORING REQUIREMENTS**

1. Injection Fluid Monitoring: Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The Permittee shall monitor as follows:
  - a. Injection Pressure: injection pressure shall be recorded daily at each wellhead during injection activities.
  - b. Injected Volume: volume of injection fluid into each well shall be recorded daily.

Injection pressure, rate, and volume data should be submitted in EPA Form 7520-8 (Rev. 4-19) Quarterly Injection Well Monitoring Report (Attachment 5).

2. Injection Fluid Sampling:

- a. A grab sample of injection fluid will be collected monthly from North Field and South Field manifolds and tested for pH, temperature, sodium (mg/l), chlorides (mg/l), total dissolved solids (mg/l) and specific gravity.
- b. Pursuant to 40 C.F.R. §146.33(b)(1), any time the source(s) or the composition of the injection fluid changes such that previously submitted injection fluid analyses are no longer representative, the Permittee shall sample the new injection fluid and provide the new representative analysis to EPA.

3. Groundwater Monitoring: A grab sample will be collected each month from the following wells:

- a. Observation Well 35
- b. Observation Well 62

Each groundwater sample will be analyzed for pH, temperature, sodium (mg/l), chlorides (mg/l), and total dissolved solids (mg/l). Each water sample shall be collected at a location prior to any treatment to ensure that the analytical results are representative of conditions in the USDW.

4. Gallery Size Monitoring Requirements:

Once every 5 years, the Permittee shall:

- a. Determine, by salt production records, recent sonar survey if any, or by an alternate method approved by the Director, the total volume and dimensions of each active gallery and the gallery's proximity to adjacent active and abandoned galleries.
- b. Estimate the projected total volume and dimensions of each active gallery and their proximity to adjacent active and abandoned galleries 5 years forward from the date of the determination required by Paragraph C.3.a above.
- c. Submit a map displaying the current and projected gallery size and spacing information, as well as copies of all supporting documentation, to EPA for review.
- d. Sonar Surveys: Sonar Surveys shall be run as needed by the Permittee. All Sonar Surveys and/or other test results shall be submitted to EPA and shall be accompanied by an interpretive report including, at a minimum, an evaluation of the gallery dimensions, total gallery volume and proximity to adjacent galleries.

5. Subsidence Monitoring Requirements

- a. Once every five years the Permittee shall conduct a subsidence survey of benchmarks covered by the December 2018 survey (Erdman-Anthony) plus any newly acquired benchmarks and note of any discontinued benchmarks.

b. The survey results shall be accompanied by an interpretive report that highlights any subsidence issues and, if applicable, provides proposed corrective actions for review and approval by the Director.

#### **D. REPORTING REQUIREMENTS**

1. The Permittee shall submit quarterly reports to the Director containing the results of monitoring and testing data required by this permit as detailed below:

- a. Description of any repair work performed on any well during the quarter.
- b. Results of any mechanical integrity testing completed during the quarter unless previously submitted.
- c. Results, as detailed below, of the monitoring specified in Part II Section C of this permit:
  - (1) Volume (barrels) of water injected into each well each month (Monthly Total).
  - (2) Volume (barrels) yearly cumulative of water injected into each well for each month (Yearly Cumulative).
  - (3) Maximum recorded injection pressure (psi) for each well each month.
  - (4) Average recorded injection pressure (psi) for each well each month.
  - (5) Minimum recorded injection pressure (psi) for each well each month.
  - (6) Maximum recorded injection rate (barrels/day) for each well each month.
  - (7) Average recorded injection rate (barrels/day) for each well each month.
  - (8) Minimum recorded injection rate (barrels/day) for each well each month.
  - (9) Injection fluid specific gravity for North Field and South Field each month.
  - (10) Analytical results of injection fluid sampling in accordance with Paragraph C.2 above.
  - (11) Analytical results from groundwater monitoring in accordance with Paragraph C.3 above.
  - (12) Results of any gallery size determinations in accordance with Paragraph C.4 above.
  - (13) Results of any subsidence monitoring in accordance with Paragraph C.5 above.

2. Quarterly reports shall be submitted no later than January 31, April 30, July 31 and October 31. The reports shall be mailed to:

Christine Ash  
Chief, Drinking Water and Ground Water Protection Section  
U.S. Environmental Protection Agency  
290 Broadway, 24th Floor  
New York, New York 10007-1866

3. A signed certification shall accompany and be attached to the submitted monitoring reports. The signed certification shall include the following statement:

“I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.” (Ref. 40 C.F.R. §144.32).

DRAFT

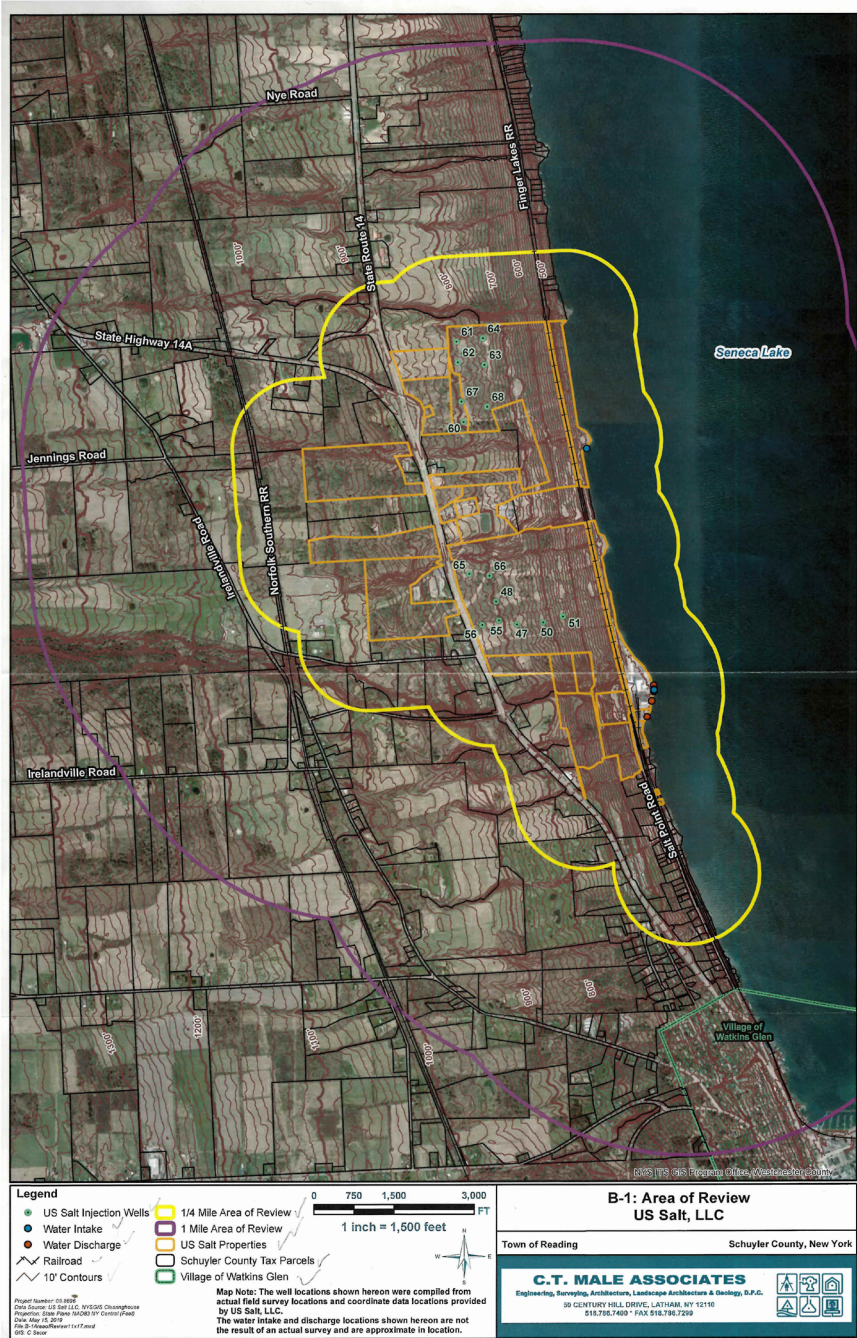
## ATTACHMENT 1A PLUGGING AND ABANDONMENT PLAN

OMB No. 2040-0042    Approval Expires 4/30/2022		
United States Environmental Protection Agency		
<b>WELL REWORK RECORD, PLUGGING AND ABANDONMENT PLAN, OR PLUGGING AND ABANDONMENT AFFIDAVIT</b>		
Name and Address, Phone Number and/or Email of Permittee		
US Salt, LLC PO Box 110 Watkins Glen, NY 14891  607-535-2850 fpastore@ussaltllc.com		
Permit or EPA ID Number	API Number	Full Well Name
NYU063860	31-097-61204-00-00	Akzo 48
State	County	
New York	Schuyler	
Locate well in two directions from nearest lines of quarter section and drilling unit		
		Latitude
		42.411207
Surface Location		
1/4 of	1/4 of	Section
Township	Range	Longitude
		-76.897455
ft. from (N/S)    Line of quarter section		
ft. from (E/W)    Line of quarter section.		
Well Class	Timing of Action (pick one)	Type of Action (pick one)
<input type="checkbox"/> Class I <input type="checkbox"/> Class II <input checked="" type="checkbox"/> Class III <input type="checkbox"/> Class V	<input type="checkbox"/> Notice Prior to Work Date Expected to Commence	<input type="checkbox"/> Well Rework <input checked="" type="checkbox"/> Plugging and Abandonment <input type="checkbox"/> Conversion to a Non-Injection Well
	<input type="checkbox"/> Report After Work Date Work Ended	
Provide a narrative description of the work planned to be performed, or that was performed. Use additional pages as necessary. See instructions.		
Set a cast iron bridge plug in the 6-5/8" casing at 2140'. Cement to surface using the balance method in three stages; approximately 347 sacks of neat class 'A' cement will be required. Cut off the wellhead below surface and weld on a steel plate. Attach a permanent subsidence monitoring monument to the well extending above ground level.		
Certification		
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR § 144.32)		
Name and Official Title (Please type or print)	Signature	Date Signed
Frank Pastore, Plant Manager		8/24/19

## ATTACHMENT 1B PLUGGING AND ABANDONMENT PLAN

ORIGINAL WELL CONSTRUCTION DURING OPERATION				PLUGGING AND ABANDONMENT CONSTRUCTION			
Well 48							
Surface				Surface			
Top of cement surface				Top Plug Interval 300-surface			
			Surface Casing 72				Surface Casing 72
Top of Cement Surface				*Middle Plug Interval 1200-300			
Top of Cement Surface			Liner Casing 2170	Top of Cement Surface			Liner Casing 2170
Perforations none			Long String Casing 2427	Bottom Plug Depth 2140-1200			Long String Casing 2427
			* Depth 2517	*Mechanical Plug Depth 2140			* Depth 2517
** Add Any Additional Information * May not Apply				** Add Any Additional Information * May not Apply			
LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED							
Specify Open Hole/ Perforations/ Varied Casing	From	To	Formation Name				
Set bridge plug in 6-5/8" casing	2140						

ATTACHMENT 2  
FACILITY MAP





**ATTACHMENT 3**  
**CONSTRUCTED WELLS AUTHORIZED BY THIS PERMIT**

<b>WELL</b>	<b>API NUMBER</b>	<b>Field</b>
U.S Salt 47	31-097-61203-02	South Field
Akzo 48	31-097-61204	South Field
Akzo 50	31-097-61206	South Field
Akzo 51	31-097-61207	South Field
U.S Salt 55	31-097-12548-02	South Field
Akzo 56	31-097-12859	South Field
Well 60	31-097-23033	North Field
Well 61	31-097-22770	North Field
Well 62	31-097-23969	North Field
Well 63	31-097-26503	North Field
Well 64	31-097-26504	North Field
Well 65	31-097-26511	South Field
US Salt 66	31-097-30004	South Field
US Salt 67	31-097-30005	North Field
US Salt 68	31-097-30006	North Field

## Attachment 4 Completion Report for Injection Wells

OMB No. 2040-0042 Approval Expires 4/30/2022

<b>United States Environmental Protection Agency</b> <b>COMPLETION REPORT FOR INJECTION WELLS</b>			
Name, Address, Phone Number and/or Email of Permittee			
State		County	
Permit (or EPA ID) Number	API Number	Full Well Name	
Locate well in two directions from nearest lines of quarter section and drilling unit  Surface Location <div style="display: flex; justify-content: space-between;"> <span>1/4 of</span> <span>1/4 of</span> <span>Section</span> <span>Township</span> <span>Range</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>ft. from (N/S)</span> <span>Line of quarter section</span> </div> <div style="display: flex; justify-content: space-between;"> <span>ft. from (E/W)</span> <span>Line of quarter section.</span> </div>		Latitude  Longitude	
Anticipated Daily Injection Volume (Bbls)		Injection Interval (Perforated/Open Hole Interval)	
Average	Maximum	Feet	to Feet
Depth to Bottom of Lowermost USDW (Feet)			
Date Drilling Began		Name of Injection Zone	
Date Drilling Completed		Fracture Pressure of Injection Zone	
Date Well Completed		Permeability of Injection Zone	
		Porosity of Injection Zone	
Complete Attachments; See Instructions.			
<b>Certification</b>  I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR § 144.32)			
Name and Official Title (Please type or print)		Signature	Date Signed

## Attachment 5

### Quarterly Injection Well Monitoring Report

OMB No. 2040-0042    Approval Expires 4/30/2022			
<span style="margin-left: 10px;">United States Environmental Protection Agency</span>			
Quarterly Injection Well Monitoring Report			
	Month/Year <input style="width: 100px;" type="text"/>	Month/Year <input style="width: 100px;" type="text"/>	Month/Year <input style="width: 100px;" type="text"/>
Injection Pressure (PSI)			
1. Minimum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
2. Average	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
3. Maximum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
Injection Rate (Barrels/Day)			
1. Minimum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
2. Average	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
3. Maximum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
Annular Pressure (PSI)			
1. Minimum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
2. Average	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
3. Maximum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
Injection Volume (Barrels)			
1. Monthly Total	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
2. Yearly Cumulative	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
Temperature (F °) - If Specified in UIC Permit			
1. Minimum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
2. Average	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
3. Maximum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
pH - If Specified in UIC Permit			
1. Minimum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
2. Average	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
3. Maximum	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
Other Information Specified in the Permit (Attach Pages if Necessary)	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>
Permit (or EPA ID) Number <input style="width: 100px;" type="text"/>	API Number <input style="width: 100px;" type="text"/>	Full Well Name <input style="width: 150px;" type="text"/>	
<b>Certification</b> I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR § 144.32)			
Name and Official Title <i>(Please type or print)</i> <input style="width: 150px;" type="text"/>	Signature <input style="width: 150px;" type="text"/>	Date Signed <input style="width: 100px;" type="text"/>	